## Research Cruise Report Channel Islands National Marine Sanctuary



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1. VESSEL	CINMS Research Vessel <i>Shearwater</i> 2. PROJECT DATES 16-19 APRIL 2003	
3. PROJECT TITLE	Anacapa Island Xantus's Murrelet (Synthliboramphus hypoleucus) Surveys	
4. CRUISE LOG	16 April: Eileen Creel was ill, replaced with Eileen Avery for first night of surveys. Depart SB Harbor at about 5 PM and arrive at Anacapa at 6:30 PM. Excellent conditions, we completed two standard surveys, radar surveys, and conducted murrelet captures.  17 April: Eileen Avery was transported to Island Packer boat about 11 AM for return trip to Oxnard. We conducted afternoon nest monitoring in the caves on the south side of Middle Anacapa. Very poor night time conditions (winds > 25 knots) precluded completion of any surveys or captures.  18 April: We picked up anchor and moved to more sheltered area at about 3:30 AM. Strong winds throughout day. Unsuccessfully searched for stern anchor left at radar site when we pulled up anchor in the morning. Afternoon check of caves	
	along north side of West and Middle Anacapa. Very strong winds (> 35 knots) in late afternoon, so we trudged through rough seas to spend night at Smuggler's Cove at Santa Cruz Island. Arrival at Smuggler's about 5 PM and set anchor. No night time ops.  19 April: Conditions improved during night. Pulled anchor at about 4 AM and returned to Anacapa to search for stern anchor, but did not find it. Returned to SB Harbor about 8:30 AM.	
5. AMENDMENTS TO CRUISE PLAN/ COMMENTS	Fourth week of surveys. Eileen Creel was taken ill morning of departure and did not accompany us for Cruise. She was replaced with Eileen Avery for first night of cruise, but we were short one person for remainder of cruise (although poor conditions limited work done).	
6. PROJECT RESULTS	<b>Methods:</b> Spotlight surveys were conducted from inflatable boats with three person crews (driver, spotlight observer, and data recorder). The driver guided the boat at low speeds along standard transect lines by navigating between way points with a hand-held GPS receiver, while the observer scanned a 180° arc with a spotlight and called off data for each murrelet or group to the data recorder. There are two types of surveys: 1) standard surveys on two transects along the south side of East Anacapa which are conducted at 10 PM, 1 AM and 4 AM, and 2) island surveys which circumnavigate the entire island.	
	Murrelet were captured by three person crews (driver, spotlight operator, and dip net handler) which searched for murrelets within 500 m of shore. We pursued murrelets located in the spotlight beam and captured them with dip nets from the inflatable boat. Murrelets were banded, weighed and examined for presence of a brood patch before being released at the capture location.	
	Radar surveys were conducted from the R/V Shearwater from an anchorage off the south side of Middle Anacapa Island. Murrelet echoes were identified by the size and speed of the radar echo. All murrelet echoes observed within 300 m of the cliffs during the 4-hour survey were recorded	
	<b>Results</b> : Murrelet numbers remained high during spotlight and radar surveys, although brightly lighted boats in spotlight transect were a problem again this week. We captured and banded four murrelets, including one bird with a brood patch and two recaptures. Sea cave monitoring has now documented nesting in six sea caves, with no signs of rats or rat depredation.	

The Channel Islands National Marine Sanctuary appreciates that you submit the required interim and/or final report in the form provided above. If the researcher/agency has compiled a final report including all necessary material for another purpose, staple a copy to this form for submittal.